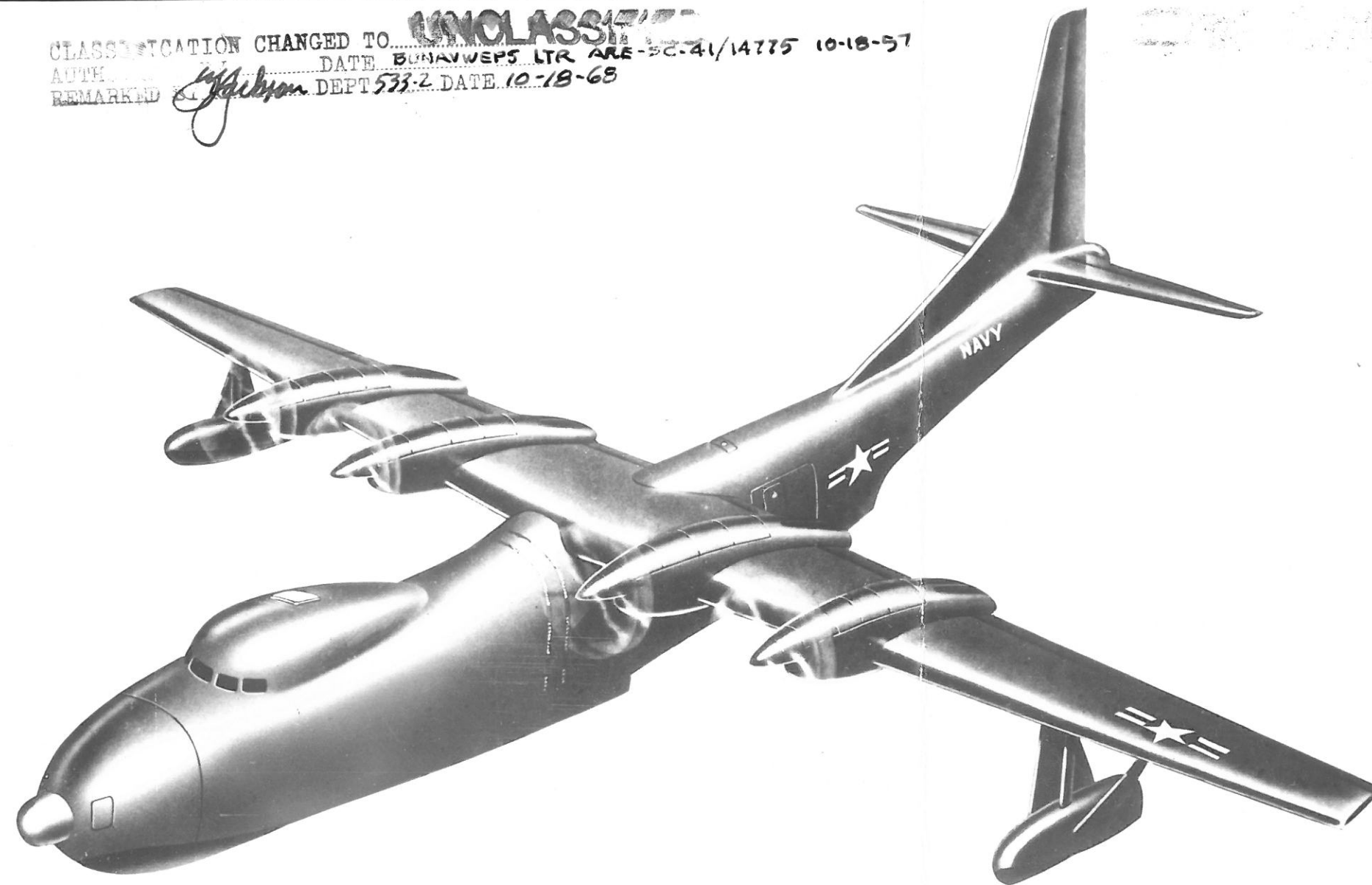


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SERVICE

CLASSIFICATION CHANGED TO **UNCLASSIFIED**  
 AUTH. DATE **BONAVWEP5 LTR ARE-SC-41/14775 10-18-57**  
 REMARKED *Jefferson* DEPT **533-2** DATE **10-18-68**



# STANDARD AIRCRAFT CHARACTERISTICS

## MODEL R3Y-2

CONSOLIDATED VULTEE AIRCRAFT CORPORATION  
 SAN DIEGO, CALIFORNIA

Standard Aircraft Characteristics NAVAER 1335A (REV. 1-49)

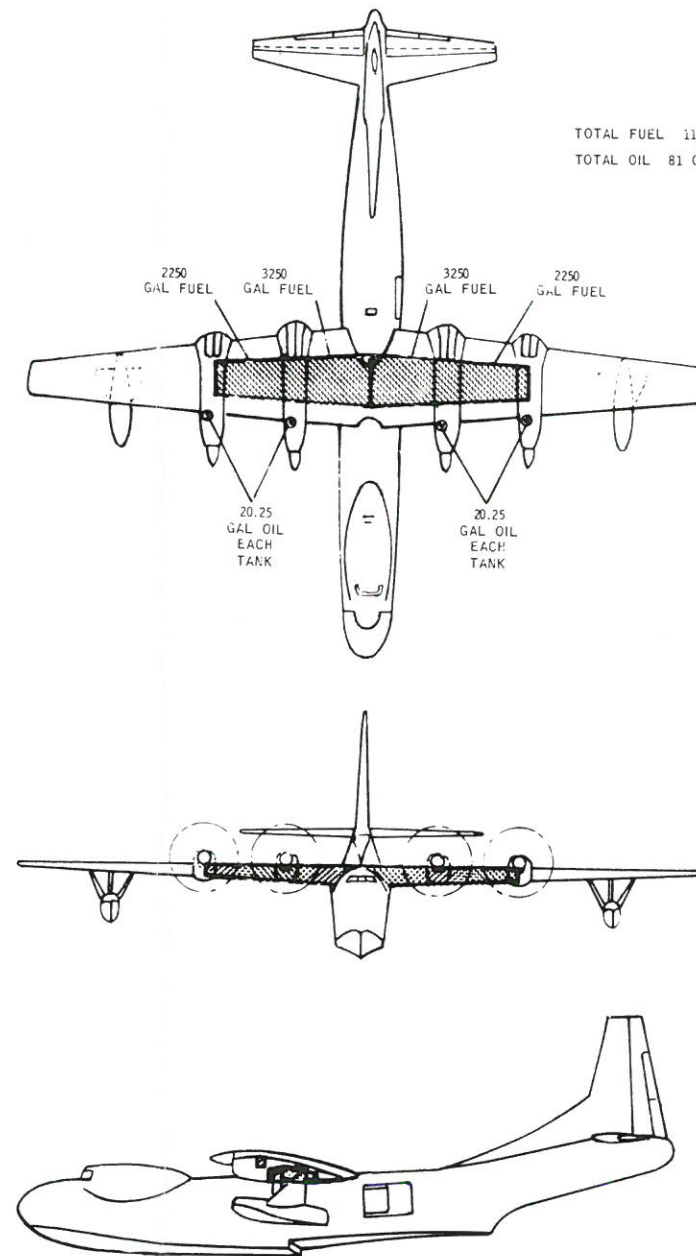
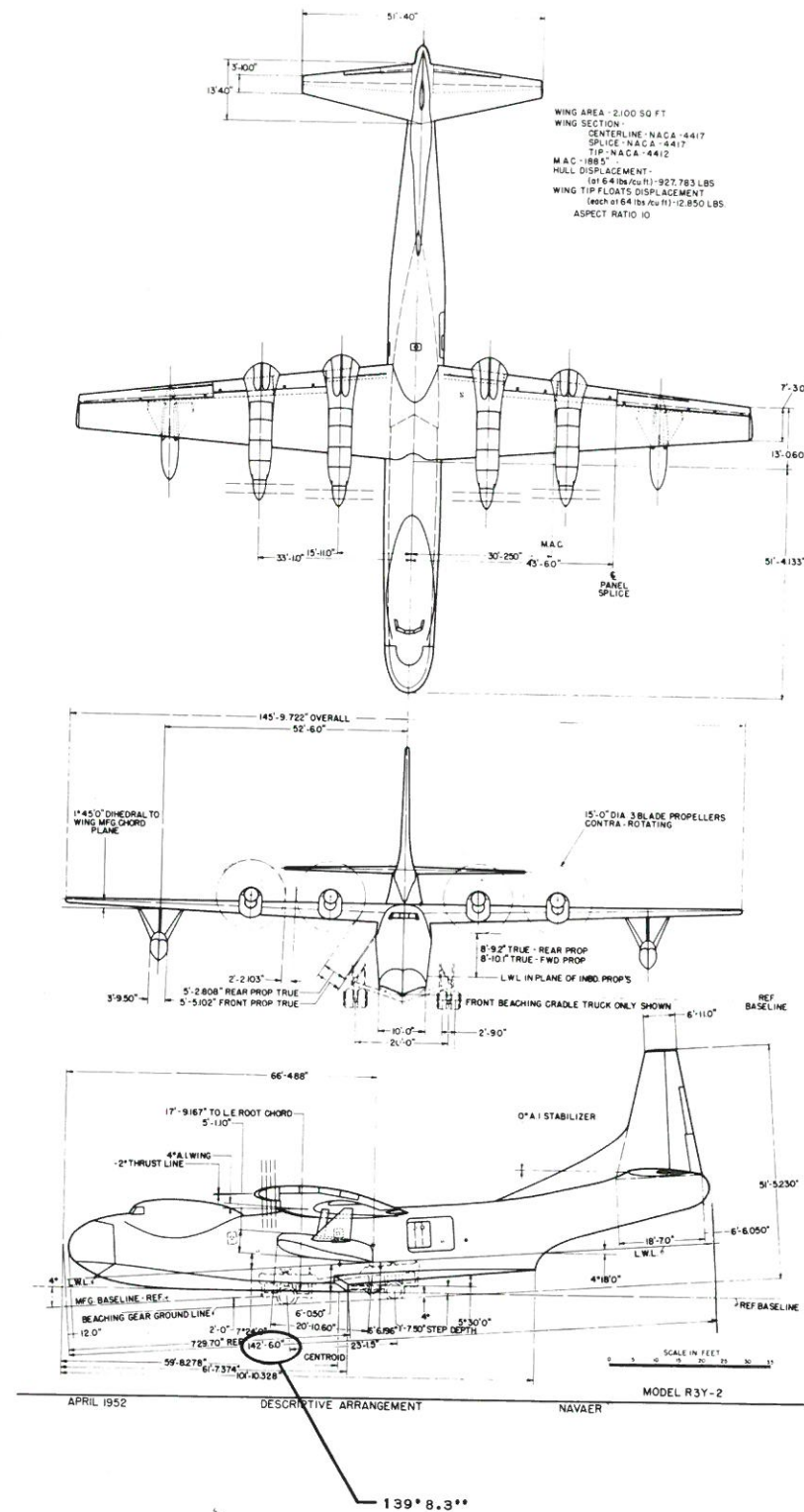
(REVISED 6 DECEMBER 1954)

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R3Y-2

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SERVICE



(REVISED 6 DECEMBER 1954)

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SERVICE

# NOTES

Combat Range based on following:

1. Warm Up, Take Off and Acceleration to Climbing Speed  
5 Min. at Normal Rating at S.L.
2. Climb to Cruising Altitude at Normal Rating.
3. Cruise at Altitude for Maximum Range - Slow Climb at  
Cruise Power. Altitude at or below Cruising Ceiling.
4. No Distance Credit or Fuel used for Descent.
5. 30 Min. at Speed for Maximum Endurance at Sea Level.
6. 5% of Initial Fuel carried as Reserve.
7. Manufacturers Specific Fuel Consumption increased 5%.

Standard Aircraft Characteristics NAVAER 1335F (REV. 1-49)

(REVISED 14 MAY 1954)

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R3Y-2

**MISSION AND DESCRIPTION**

The principal mission of the airplane is to transport cargo, passengers, troops or litter patients.

The model R3Y-2 airplane is designed for bow loading and is a development of the Model R3Y-1 flying boat. It is a high wing, full cantilever monoplane, having two fixed auxiliary floats and a single tail. The hull is of high length/beam ratio design and incorporates a large movable nose section for bow loading and a large cargo door on the after port side.

The cargo floor is equipped for cargo tie-down and handling and includes attachment for seats for 103 passengers or troops, or litters for 92 patients and seats for 12 medical attendants. Maximum cargo load is 44,000 pounds.

Slotted type flaps are installed at the wing trailing edge between the hull and the inboard end of each aileron.

**DIMENSIONS**

SPAN	145'10"
LENGTH	139'8.3"
HEIGHT ON BEACHING CRADLE	51'5"
WING AREA	2100 SQ. FT.
PROP. WATER CLEARANCE	8'9"

**WEIGHTS**

LOADING	LBS	LF
EMPTY (E)	86200	-
BASIC (E)	87491	-
* DES. FLT. G.W.	145500	3.0
** DES. LAND. G.W.	145500	5.95
* OVERLOAD FLT		
GROSS WEIGHT	#165000	2.5
*** OVERLOAD LAND		
ING G.W.	165000	4.40
* Max. Cargo 44000 Lbs.		
** Rough Water Landing (50000 Lbs. Fuel)		
*** Sheltered Water Landing (66000 Lbs. Fuel)		
# Limited by Design Req.		

**FUEL AND OIL**

FOUR INTEGRAL WING FUEL TANKS	
LOCATION	CAP.
PORT OUTBOARD	2250
PORT INBOARD	3250
STARBOARD INBOARD	3250
STARBOARD OUTBOARD	2250
TOTAL	11,000
FUEL MIL-F-5572 & MIL-F-5624A(JP-4)	
GRADE 100/130	
OIL	
FOUR OIL BLADDER CELLS IN NACELLES	
81 GALS. OIL TOTAL	
PRL-3161	
PRL-3161 OR PRL-3313 SYNTHETIC OIL	

**ELECTRONICS**

COMMAND (VHF) (UHF)  
LIAISON  
NAVIGATION (LORAN) (ADF)  
IDENTIFICATION  
SEARCH RADAR  
MIL TI-PLACE  
INTERPHONE SYSTEM

**POWER PLANT**

FOUR ALLISON T40-A-10 PROPELLER  
TURBINES ENG. SPEC. 300-C

FOUR AERO PRODUCTS PROPS.  
DUAL ROTATION, FEATHERING  
AND REVERSE PITCH, AD8664FN-  
B1/ F40A1-198-18M5/-198L-20  
15' DIA. 6 BLADES

**RATINGS**

(BASED ON STD. S.L.)

RATING	TIME	RPM	SHF	JET THRUST
TAKE-OFF	5 MIN.	14,300	5332	1296
MILITARY	30 MIN.	14,300	5332	1296
NORM (100%)	CONTIN.	14,300	4444	1240
CRUISE (80%)	"	14,300	3556	1160
CRUISE (60%)	"	14,300	2666	1084

**ACCOMMODATIONS****CARGO**

MAX. CARGO LOAD	44,000 LB.
SPACE DIMENSIONS:	
LENGTH	88'-11.5"
MAX. WIDTH	9'-6"
LIMIT FLOOR LOADS:	
LOCAL	300 #/SQ FT
RUNNING LOAD	FUSELAGE STATION
300#/FT	1 TO 3
750#/FT	3 TO 5.2
1500#/FT	5.2 TO 10
750#/FT	10 TO 15

**PERSONNEL**

CREW:	
ON DUTY	5
OFF DUTY	2
PASSENGERS	103
TROOPS	103
LITTER PATIENTS	92
MEDICAL ATTENDANTS	12

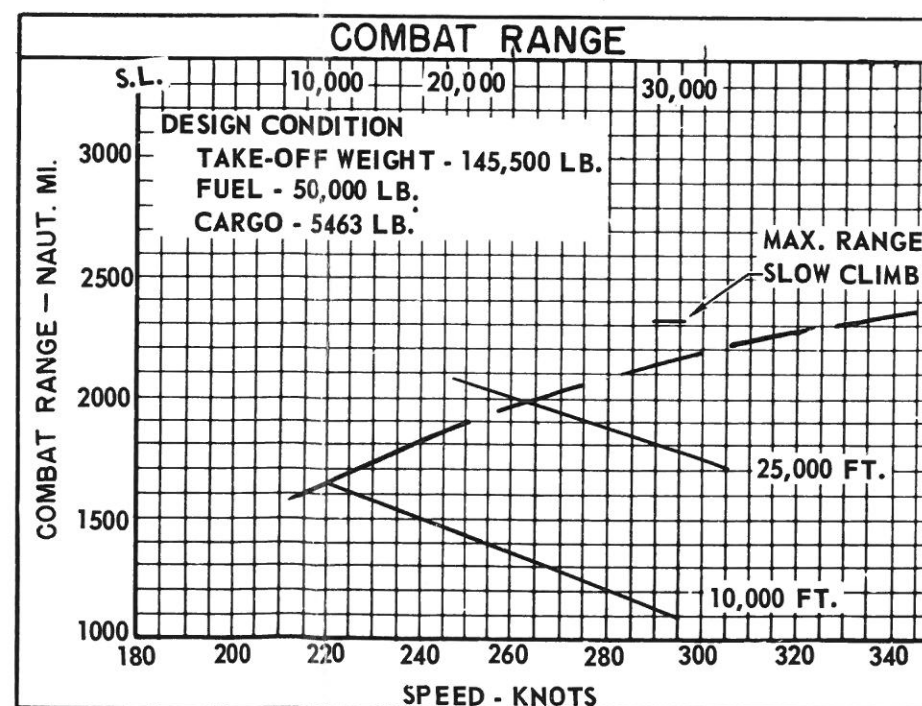
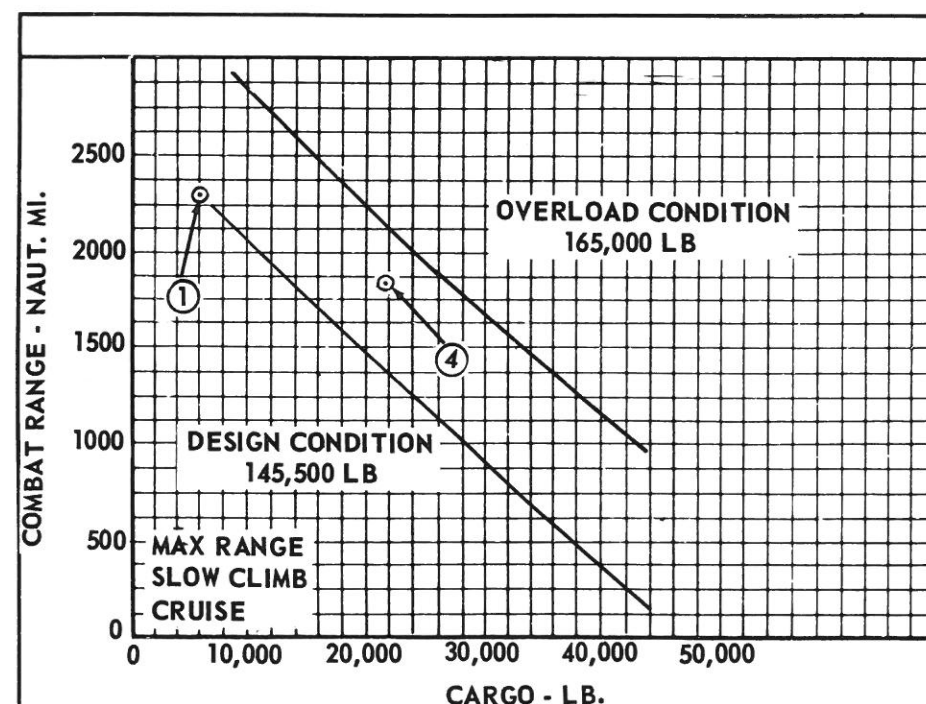
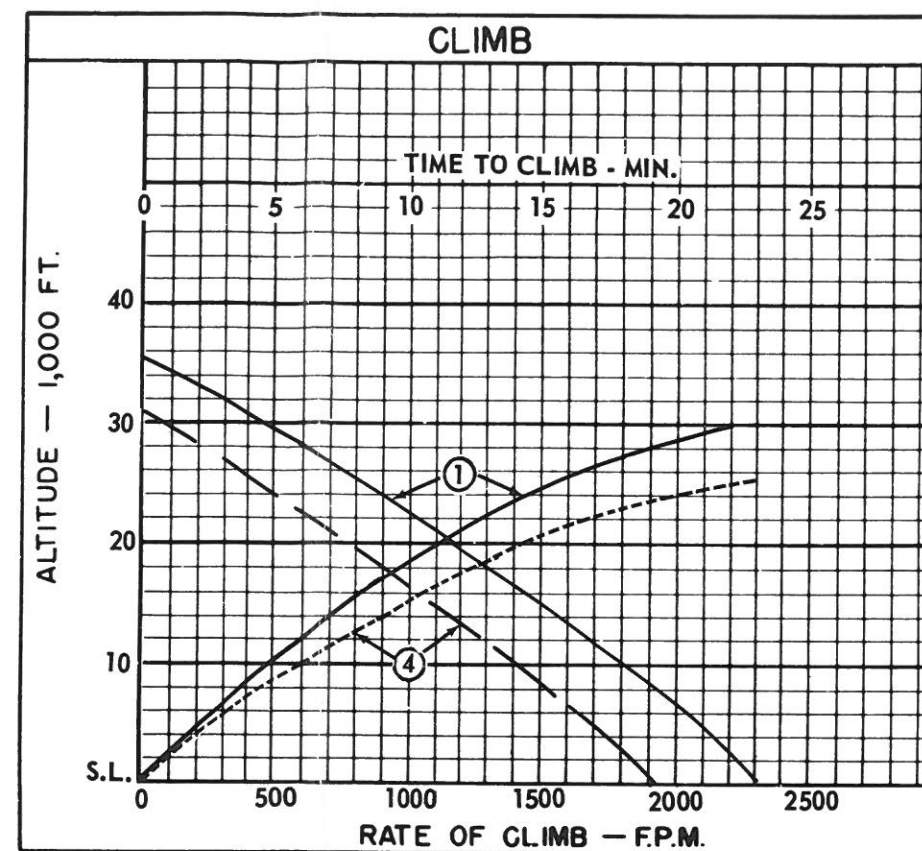
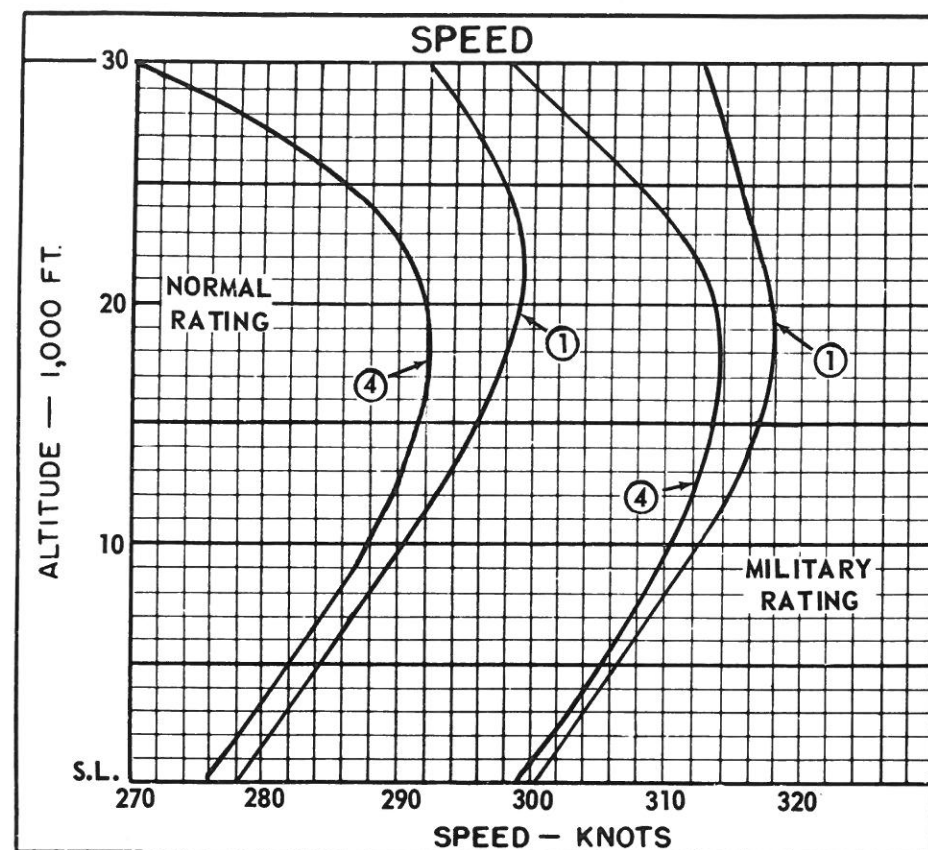
## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) CARGO	(4) PERSONNEL TRANSPORT 103 PASSENGERS 4120 LB BAGGAGE			
TAKE-OFF WEIGHT	lb.	145,500	165,000			
Fuel	lb.	50,000	47,974			
Payload	lb.	5,463	21,630			
Wing loading	lb./sq.ft.	69.3	78.6			
Stall speed - power-off	kn.	92	98			
Take-off time in calm (A) sec.	ft.	24	32			
Take-off run at S.L. kn. wind	ft.	N.A.	N.A.			
Take-off to clear 50 ft. - calm	ft.	N.A.	N.A.			
Max. speed/altitude (B)	kn./ft.	299/22,000	292/19,000			
Rate of climb at S.L. (B)	fpm	2300	1900			
Time: S.L. to 20,000 ft. (B)	min.	11.5	15.2			
Time: S.L. to 30,000 ft. (B)	min.	24.6	41.0			
Service ceiling (100 fpm) (B)	ft.	34,000	29,500			
Combat range	n.mi.	2320	1840			
Average cruising speed	kn.	289	287			
Cruising altitude(s)	ft.	33,000-40,500	28,000-36,500			
Combat radius	n.mi.	NA	NA			
Average cruising speed	kn.	NA	NA			
COMBAT LOADING CONDITION						
COMBAT WEIGHT	lb.	NA	NA			
Engine power		NA	NA			
Fuel	lb.	NA	NA			
Combat speed/combat altitude	kn./ft.	NA	NA			
Rate of climb/combat altitude	fpm/ft.	NA	NA			
Combat ceiling (500 fpm)	ft.	NA	NA			
Rate of climb at S.L.	fpm	NA	NA			
Max. speed at S.L.	kn.	NA	NA			
Max. speed/altitude	kn./ft.	NA	NA			
LANDING WEIGHT	lb.	102,300	123,856			
Fuel	lb.	6800	6830			
Stall speed - power-off	kn.	77	84.5			
Stall speed - with approach power	kn.	--	--			

## NOTES

- (A) TAKE-OFF POWER  
 (B) NORMAL POWER  
 (C) PERFORMANCE BASIS  
 1.) DATA SOURCE - ESTIMATED DATA  
 2.) PWR BASED ON ENGINE MFR. ESTIMATED PERFORMANCE





○ LOADING CONDITION COLUMN NUMBER